

What is claimed is:

- 1 1. A method of treating adverse affects associated with a disruption of GABP's metabolic
2 pathway, comprising administering to a patient an effective amount of an agent
3 selected from a group consisting of:
4 a) an agent that increases concentration of a GABP stimulator;
5 b) an agent that decreases concentration of a GABP suppressor;
6 c) an agent that increases effectiveness of a GABP stimulator; and
7 d) an agent that decreases effectiveness of a GABP suppressor.
- 1 2. The method of claim 1 wherein said adverse affect associated with microcompetition is
2 cancer and said patient is being treated for cancer.
- 1 3. The method of claim 1 wherein said adverse affect associated with microcompetition is
2 atherosclerosis and said patient is being treated for atherosclerosis.
- 1 4. The method of claim 1 wherein said adverse affect associated with microcompetition is
2 osteoarthritis and said patient is being treated for osteoarthritis.
- 1 5. The method of claim 1 wherein said adverse affect associated with microcompetition is
2 obesity and said patient is being treated for obesity.
- 1 6. A method of treating adverse affects associated with a disruption of GABP's metabolic
2 pathway, comprising administering an effective amount of an agent selected from a
3 group consisting of:
4 a) an agent that increases concentration of GABP α ;
5 b) an agent that increases concentration of GABP β ;
6 c) an agent that decreases concentration of GABP γ ;
7 d) an agent that increases phosphorylation of GABP;
8 e) an agent that increases affinity between GABP and p300/CBP;
9 f) an agent that stimulates binding of GABP to DNA; and
10 g) an agent that increases concentration of p300/CBP.
- 1 7. The method of claim 6 wherein said adverse affect associated with microcompetition is
2 cancer and said patient is being treated for cancer.

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- 1 8. The method of claim 6 wherein said adverse affect associated with microcompetition is
2 atherosclerosis and said patient is being treated for atherosclerosis.
- 1 9. The method of claim 6 wherein said adverse affect associated with microcompetition is
2 osteoarthritis and said patient is being treated for osteoarthritis.
- 1 10. The method of claim 6 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.
- 1 11. A method of treating adverse affects associated with a disruption of GABP's
2 metabolic pathway, comprising administering an effective amount of an agent
3 selected from a group consisting of:
4 a) an agent that increases concentration of a GABP kinase;
5 b) an agent that stimulates phosphorylation of a GABP kinase;
6 c) an agent that increases affinity between GABP and GABP kinase;
7 d) an agent that decreases oxidative effects on GABP; and
8 e) an agent that decreases foreign DNA N-boxes in cells.
- 1 12. The method of claim 11 wherein said adverse affect associated with microcompetition
2 is cancer and said patient is being treated for cancer.
- 1 13. The method of claim 11 wherein said adverse affect associated with microcompetition
2 is atherosclerosis and said patient is being treated for atherosclerosis.
- 1 14. The method of claim 11 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.
- 1 15. The method of claim 11 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.
- 1 16. A method of treating adverse affects associated with a disruption of GABP's
2 metabolic pathway, comprising administering an effective amount of an agent that
3 decreases oxidative effects on GABP.

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1 17. The method of claim 16 wherein said adverse affect associated with microcompetition
2 is cancer and said patient is being treated for cancer.

1 18. The method of claim 16 wherein said adverse affect associated with microcompetition
2 is atherosclerosis and said patient is being treated for atherosclerosis.

1 19. The method of claim 16 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.

1 20. The method of claim 16 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.

1 21. A method of treating adverse affects associated with a disruption of GABP's
2 metabolic pathway, comprising administering an effective amount of an agent that
3 decreases foreign DNA N-boxes in cells.

1 22. The method of claim 20 wherein said adverse affect associated with microcompetition
2 is cancer and said patient is being treated for cancer.

1 23. The method of claim 20 wherein said adverse affect associated with microcompetition
2 is atherosclerosis and said patient is being treated for atherosclerosis.

1 24. The method of claim 20 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.

1 25. The method of claim 20 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.

1 26. A method of identifying compounds to be tested for treating adverse affects associated
2 with a disruption of GABP's metabolic pathway, comprising:

- 3 a) providing an assay capable of determining compounds that perform a function
4 selected from a group consisting of:
5 i) increases concentration of a GABP stimulator,
6 ii) decreases concentration of a GABP suppressor,
7 iii) increases effectiveness of a GABP stimulator, and

- iv) an agent that decreases effectiveness of a GABP suppressor; and
b) running sample compounds through said assay and identifying any compound that performs one of said functions as a compound to be tested.

27. The method of claim 26 wherein said adverse affect associated with microcompetition is cancer and said patient is being treated for cancer.

28. The method of claim 26 wherein said adverse affect associated with microcompetition is atherosclerosis and said patient is being treated for atherosclerosis.

29. The method of claim 26 wherein said adverse affect associated with microcompetition is osteoarthritis and said patient is being treated for osteoarthritis.

30. The method of claim 26 wherein said adverse affect associated with microcompetition is obesity and said patient is being treated for obesity.

31. A method of identifying compounds to be tested for treating adverse affects associated with a disruption of GABP's metabolic pathway, comprising:

- a) providing an assay capable of determining compounds that perform a function selected from a group consisting of:
i) increases concentration of GABP α ,
ii) increases concentration of GABP β ,
iii) decreases concentration of GABP γ ,
iv) increases phosphorylation of GABP,
v) increases affinity between GABP and p300/CBP,
vi) stimulates binding of GABP to DNA, and
vii) increases concentration of p300/CBP; and
b) running sample compounds through said assay and identifying any compound that performs one of said functions as a compound to be tested.

32. The method of claim 31 wherein said adverse affect associated with microcompetition is cancer and said patient is being treated for cancer.

33. The method of claim 31 wherein said adverse affect associated with microcompetition is atherosclerosis and said patient is being treated for atherosclerosis.

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1 34. The method of claim 31 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.

1 35. The method of claim 31 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.

1 36. A method of identifying compounds to be tested for treating adverse affects associated
2 with a disruption of GABP's metabolic pathway, comprising:

3 a) providing an assay capable of determining compounds that perform a function
4 selected from a group consisting of:

5 i) increases concentration of a GABP kinase,

6 ii) stimulates phosphorylation of a GABP kinase, and

7 iii) increases affinity between GABP and GABP kinase; and

8 b) running sample compounds through said assay and identifying any compound
9 that performs one of said functions as a compound to be tested.

1 37. The method of claim 36 wherein said adverse affect associated with microcompetition
2 is cancer and said patient is being treated for cancer.

1 38. The method of claim 36 wherein said adverse affect associated with microcompetition
2 is atherosclerosis and said patient is being treated for atherosclerosis.

1 39. The method of claim 36 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.

1 40. The method of claim 36 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.

1 41. A method of identifying compounds to be tested for treating adverse affects associated
2 with a disruption of GABP's metabolic pathway, comprising:

3 a) providing an assay capable of determining compounds that decrease
4 oxidative effect on GABP; and

5 b) running sample compounds through said assay and identifying any compound
6 that performs one of said functions as a compound to be tested.

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- 1 42. The method of claim 41 wherein said adverse affect associated with microcompetition
2 is cancer and said patient is being treated for cancer.
- 1 43. The method of claim 41 wherein said adverse affect associated with microcompetition
2 is atherosclerosis and said patient is being treated for atherosclerosis.
- 1 44. The method of claim 41 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.
- 1 45. The method of claim 41 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.
- 1 46. A method of identifying compounds to be tested for treating adverse affects associated
2 with a disruption of GABP's metabolic pathway, comprising:
3 a) providing an assay capable of determining compounds decreases foreign
4 DNA N-boxes in cells; and
5 b) running sample compounds through said assay and identifying any compound
6 that performs one of said functions as a compound to be tested.
- 1 47. The method of claim 46 wherein said adverse affect associated with microcompetition
2 is cancer and said patient is being treated for cancer.
- 1 48. The method of claim 46 wherein said adverse affect associated with microcompetition
2 is atherosclerosis and said patient is being treated for atherosclerosis.
- 1 49. The method of claim 46 wherein said adverse affect associated with microcompetition
2 is osteoarthritis and said patient is being treated for osteoarthritis.
- 1 50. The method of claim 46 wherein said adverse affect associated with microcompetition
2 is obesity and said patient is being treated for obesity.

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